

PID3**TRENDS IN INPATIENT COSTS FOR ACUTE PANCREATITIS IN THE UNITED STATES**

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Although the care of patients with pancreatitis-related complications is estimated to be much more resource-intensive than that provided to other critically-ill patients, information on the cost of acute pancreatitis is limited. **OBJECTIVES:** To examine trends in the incidence and cost of acute pancreatitis-related hospitalizations in the United States, and to ascertain patient disposition at discharge to evaluate the extent to which costs may extend beyond the initial hospitalization. **METHODS:** Data were obtained from the 1995–1997 Health care Cost and Utilization Project database. ICD-9-CM code 577.0 was used to identify hospitalizations with a primary or secondary diagnosis of acute pancreatitis. Patient demographics, length of stay (LOS), total charges (in constant 1995 dollars), and discharge status were assessed. **RESULTS:** Between 1995 and 1997, the number of acute pancreatitis-related hospitalizations increased by 9.1% from 241,178 to 263,136. During that period, the average LOS decreased by 9.5% from 8.4 days to 7.6 days and the mean hospital charges decreased by 4.9% from \$19,222 to \$18,280. Using LOS 15 days as a proxy for severity, severe acute pancreatitis-related hospital discharges decreased from 30,444 in 1995 to 27,839 in 1997. During that period, the average LOS remained constant (28.9–28.4 days) and the mean charges increased from \$77,572 to \$82,043. Nationwide, the projected pancreatitis-related inpatient charges have increased from \$4.6 to \$4.8 billion. Despite representing 12% of admissions, severe acute pancreatitis-related charges represented 49% of all acute pancreatitis-related inpatient charges. 38–41% of patients were discharged to another facility, suggesting that these cost estimates are conservative. **CONCLUSIONS:** Acute pancreatitis is a major financial burden on health care systems due to high inpatient costs and frequent need for medical care that extends beyond the hospital stay. Despite a reduction in charge per case, total inpatient charges of pancreatitis have increased to rising incidence.

PID4**ECONOMIC COST OF HIV INFECTION IN UNTREATED WORKERS: AN EMPLOYER'S PERSPECTIVE**

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It is necessary to understand the direct and indirect costs of HIV infection in untreated workers in order to estimate the value of aggressive antiretroviral therapies from an employer's perspective. Currently the cost of HIV/

AIDS from an employer's perspective is not well understood. **OBJECTIVES:** To estimate lifetime costs of HIV infection in untreated employees from an employer's perspective. **METHODS:** A simulation model was developed to predict costs of HIV infection in untreated employees from an employer's perspective over a ten-year time frame. This model utilized age, CD4+ cell counts, and plasma HIV-1 RNA level as major predictors of disease progression and expected patient survival to estimate lifetime costs. Major direct cost components were health insurance premium, life insurance premium, short-term disability benefits, long-term disability benefits, and hiring/training expenses. The indirect cost included productivity loss at work. **RESULTS:** For a hypothetical 35-year old HIV-positive employee with CD4+ cell counts at 380 cells/mm³ and HIV-1 RNA at 22,000 copies/ml, the model estimated that the total direct and indirect costs of HIV infection was \$165,873 from the employer's perspective over a 10-year period. This included \$66,659 for health insurance, \$12,788 for life insurance costs, \$8,580 for short-term and long-term disability benefits, \$25,894 for hiring and training expenses and \$51,952 due to productivity loss. Sensitivity analyses suggested that changes in employee age, CD4+ cell count, HIV-1 RNA viral load, and CD4+ cell decline rate were important parameters that significantly impact the costs of untreated HIV workers to employers. **CONCLUSION:** Without effective antiretroviral therapy, HIV infection could result in significant direct and indirect costs to employers. Therefore, the cost-effectiveness of treatment with advanced antiretroviral regimen should be considered for HIV infected workers.

PID5**MOXIFLOXACIN VS AMOXICILLIN/CLAVULANATE IN THE TREATMENT OF ACUTE MAXILLARY SINUSITIS (AMS): EFFICACY, SAFETY AND PATIENT-REPORTED OUTCOMES IN PRIMARY CARE**

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OBJECTIVE: This study was designed to reflect real-world experience in the treatment of patients with AMS. Efficacy, safety, and patient-reported outcomes variables were compared between moxifloxacin (MXF) and amoxicillin/clavulanate (AC) for the management of AMS in a primary care setting. **METHODS:** In this prospective, multicenter, non-blinded phase IIIb trial, 475 adult patients with symptoms of AMS were randomized to receive a 10-day oral regimen of either MXF (400mg once-daily) or AC (875mg twice-daily). Clinical success at the test-of-cure (TOC) visit (post-therapy days 14–21) was the primary efficacy measure. Secondary outcomes included rate of clinical relapse at follow-up (post-therapy days 26–46) and exploratory evaluation of patient-reported outcomes variables. Safety data was also tabulated from intent-to-treat (ITT) patients. **RESULTS:** Of

471 adults comprising the ITT population (234 MXF, 237 AC), MXF treatment was statistically equivalent to AC at the TOC visit (85.2% vs 81.8%; 95%CI = -6%,13%). Per-protocol analysis also confirmed statistical equivalence between MXF and AC (86.5% vs 83.6%; 95%CI = -7%,13%). Rates of relapse were similar for the ITT (4% MXF, 5% AC) and the per-protocol (4% both) populations. The frequency of drug-related adverse events were similar between MXF (30%) and AC (25%) and were primarily gastrointestinal-related: nausea (11% MXF, 5% AC) and diarrhea (3% MXF, 10% AC). At the TOC visit, significantly more MXF-treated patients ($n = 47$; 24%) in the ITT population than AC-treated patients ($n = 28$; 14%) reported symptomatic improvement by day 3 ($p < 0.02$). No differences existed in terms of lost work hours or time to return to normal activities between treatment groups. **CONCLUSIONS:** In this primary care clinical trial, once-daily MXF was as effective and safe as twice-daily AC in the treatment of AMS. In some patients, MXF was associated with more rapid symptomatic relief, which has potential clinical and socioeconomic implications.

PID6

HIV/AIDS HEALTH STATE UTILITIES USING COMMUNITY AND PATIENT PREFERENCE WEIGHTS: WHEN DOES IT MATTER?

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OBJECTIVES: To compare utilities for HIV/AIDS health states derived from community-based preferences with those derived from patients, and to examine the implications of differences for a cost-effectiveness analysis of early versus deferred treatment of HIV patients presenting with CD4 cell counts of 500/ μ L. **METHODS:** We used data from the HIV Cost and Services Utilization Study (HCSUS), a probability sample of 2,864 HIV-infected adults receiving care in the United States in 1996, to derive utilities for HIV/AIDS health states. Community-based utilities were calculated from the SF-6D responses in the HCSUS survey using algorithms derived by Brazier et al. Patient utilities were calculated from patient self-assessments using a rating scale transformation derived by Torrance et al. We used a computer-based state-transition simulation model of HIV disease to conduct cost-effectiveness analyses using both community and patient utilities. **RESULTS:** Patient utilities were significantly higher (by 4% to 9%, $p < 0.001$) than community utilities for all disease stages: for asymptomatic HIV patients 0.970 (0.963–0.977) vs. 0.937 (0.926–0.949); for symptomatic HIV patients 0.910 (0.902–0.919) vs. 0.841 (0.826–0.855); and for patients with a history of an AIDS-defining condition 0.845 (0.832–0.858) vs. 0.778

(0.761–0.795). The cost-effectiveness ratio of early therapy (initiated at 500 CD4 cells/ μ L) versus deferred therapy (initiated at <200 CD4 cells/ μ L) was \$20,100/QALY using community utilities and \$18,400/QALY using patient utilities. In a sensitivity analysis, when we assumed a 20% reduction in quality of life due to side effects during early therapy but not during deferred therapy, the cost-effectiveness ratio of early versus deferred therapy was \$50,900/QALY using community utilities and \$46,300/QALY using patient utilities. **CONCLUSIONS:** There are differences between community and patient utilities for HIV/AIDS health states. The impact of these differences on HIV/AIDS cost-effectiveness results should be considered when treatment side effects are important.

PID7

OBSERVATIONAL EVALUATION OF HEALTH STATE UTILITIES AMONG A COHORT OF SEPSIS PATIENTS

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OBJECTIVE: Among sepsis survivors, during recovery and thereafter, it is not established if patients resume or improve their quality of life. The study objective was to assess change in health status among sepsis survivors over a 6-month period. **METHODS:** This was a prospective, multicenter, cohort study involving 701 patients with severe sepsis of presumed infectious origin from 53 hospitals. Patients' health status was assessed at day 30, 60, 90 and 180 using EuroQoL-5D and a visual analog scale. Instruments were completed by the patient while in hospital and follow-up assessments were performed by telephone interview. **RESULTS:** For this interim analysis, 93 patients had completed health state information for day 30, 60, 90, and 180. Mean (SD) age was 60 + 17 years and 48% were female. The number of patients remaining in the hospital decreased from 56% at day 30 to 7%, thereafter. The average utility score/VAS score at each time point was: 0.53/0.61 (day 30), 0.62/0.68 (day 60), 0.68/0.71 (day 90), 0.69 ($p < 0.0001$)/0.72 (day 180). Based on patients' subjective assessment of their health status during the last 12 months, 60% had improved or maintained their health. The improvement in utility scores was influenced primarily by changes in mobility, self-care, and usual activities. Pain and anxiety appeared to have a minimal influence on overall improvement in health status. At day 30, 28% of the patients reported no problems in walking, compared to 58% at day 180. Likewise, 48% and 26% of patients reported no problems with self-care and performing usual activities at day 30, respectively, and 67% (self-care) and 47% (usual activities) at day 180. **CONCLUSION:** Sepsis survivors experienced a continual improvement towards population-based normal levels in their health utility scores over a 6-month period. Improvements in physical activity, self-care and usual activities were predominantly associated with improved health utility.